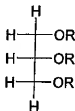


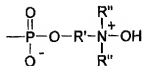
CLAIMS

1. An aqueous hydraulic fluid comprising, in addition to water, at least one phospholipid lubricant, wherein the hydraulic fluid comprises less than 20% by weight of an oil selected from a mineral oil, a synthetic hydrocarbon oil or any mixture thereof.
2. An aqueous hydraulic fluid as claimed in Claim 1 comprising water in an amount at least substantially 10% wt of the total weight of the hydraulic fluid.
3. An aqueous hydraulic fluid as claimed in Claim 1 or 2 comprising water in an amount of no more than substantially 95% wt of the total weight of the hydraulic fluid.
4. An aqueous hydraulic fluid as claimed in any preceding claim wherein the phospholipid lubricant comprises a phosphatide, especially having a structure



- wherein at least one R is a phosphorus containing group having the structure

(46)



and at least one R is a fatty acyl group; and

wherein R' is independently an alkyl group preferably independently having from 1 to 12 carbon atoms and R'' is an alkyl group preferably independently having from 1 to 8 carbon atoms, more preferably from 1 to 4 carbon atoms.

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10 5. An aqueous hydraulic fluid as claimed in Claim 4 wherein one R group is a phosphorus containing group and two R groups are fatty acyl groups.

- 3 X 15 An aqueous hydraulic fluid as claimed in Claim 4 or 5 comprising at least one phosphatide selected from phosphatidylcholine, phosphatidylinositol, phosphatidylserine and phosphatidylethanolamine.

- 2 X 20 An aqueous hydraulic fluid as claimed in any preceding claim comprising more than one phospholipid.

- 2 20 8. An aqueous hydraulic fluid as claimed in Claim 7 wherein the hydraulic fluid comprises phosphatidylcholine, phosphatidylinositol and phosphatidylethanolamine.

- 3 25 9. An aqueous hydraulic fluid as claimed in any preceding claim wherein the total concentration of the or all of the phospholipid lubricants comprises at least substantially 0.1% wt of the total weight of the hydraulic fluid.

- 2 10. An aqueous hydraulic fluid as claimed in any preceding claim wherein the total concentration of the or all of the phospholipid lubricants comprises no more than substantially 30% wt of the total weight of the hydraulic fluid.
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- 3 11. An aqueous hydraulic fluid as claimed in any preceding claim comprising a plant-derived lecithin comprising a mixture of phosphatides and/or phospholipids.
- 3 12. An aqueous hydraulic fluid as claimed in Claim 11 wherein the plant-derived lecithin is selected from soybean lecithin, castor lecithin, rapeseed lecithin, cottonseed lecithin and mixtures thereof.
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- 3 13. An aqueous hydraulic fluid as claimed in Claim 12 wherein the plant-derived lecithin is soybean lecithin.
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- 1 14. An aqueous hydraulic fluid as claimed in any one of Claims 11 to 13 wherein the plant-derived lecithin comprises at least 1% wt of the total weight of hydraulic fluid.
- 3 20 15. An aqueous hydraulic fluid as claimed in any preceding claim wherein the or each phospholipid, or mixture of phospholipids is substantially the sole lubricant in the hydraulic fluid.
- 3 25 16. An aqueous hydraulic fluid as claimed in any preceding claim further comprising at least one corrosion inhibitor.
- 3 17. An aqueous hydraulic fluid as claimed in Claim 16 wherein the corrosion inhibitor comprises an alkylamine or alkanolamine.

- 3 18. An aqueous hydraulic fluid as claimed in any preceding claim further comprising an anti-freeze additive.
- 3 19. An aqueous hydraulic fluid as claimed in Claim 18 wherein the anti-freeze additive is selected from a glycol compound, glycerol, or a glycerol ester.
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- 3 20. An aqueous hydraulic fluid as claimed in any preceding claim comprising less than 10% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
- 3 21. An aqueous hydraulic fluid as claimed in Claim 20 comprising less than 1% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
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- 3 22. An aqueous hydraulic fluid as claimed in Claim 20 or 21 comprising less than 0.1% wt of a mineral oil, synthetic hydrocarbon oil or mixture thereof.
- 3 15 23. An aqueous hydraulic fluid as claimed in any preceding claim which is substantially free of mineral oil, synthetic hydrocarbon oil and mixtures thereof.
- 3 24. An aqueous hydraulic fluid as claimed in any preceding claim substantially free of phosphorodithioates.
- 3 20 25. Use of an aqueous hydraulic fluid of any one of Claims 1 to 24 in an off-shore, mineral or mining drilling apparatus.